Amendment to the Specification:

Please replace the paragraphs of the specification as follows:

[00034]   Processing unit 104 may be located physically with receiver 102 such that one processing unit is ~~collocated~~ <u>co-located</u> or integral with each receiver. Alternatively, other arrangements may be possible, such as remotely locating processing unit 104 from receiver 102.

[00047]   Thus, sub-aperture 210 tasks waveform generator 212 to generate a waveform from independent pseudo-random phase samples. The waveform is passed to time aperture 214. Time apertures may create a train of pulses that are coded differently for each sub-aperture. Alternatively, time aperture 214 may be bypassed to provide continuous wave ("CW") coded signals. For example, pseudo-random phase coding may occur where the length of the sequence exceeds the expected coherent correlation intervals. The waveform or train of pulses is received by amplifier 216 and passed to a bank of phase shifters 218 and sub-aperture weights 219. Phase shifters 218 and sub-aperture weights 219 may be set independently for each sub-aperture. Phase shifters 218 and sub-aperture <u>weights</u> 219 may be designed to generate a fixed beam in a direction relative to the boresight of transmitter 200. Further, the waveform is coded with the information to generate the data quads at the receiver, as disclosed in greater detail below. The waveform may be forwarded to antennas 280 for transmission. Sub-apertures 220 and 230 may operate in a similar manner, such that different waveforms are transmitted by antennas 280.